Remedial Investigation Work Plan

Health and Safety Contingency Plan

for the

Passaic River Study Area

Revised July 1995

23508-22089/R12.TS 03-12-1(8:52am)/RPT/8

The format of this document may appear slightly different from the version submitted to US EPA (1995) due to changes in software. There has been no change in content.

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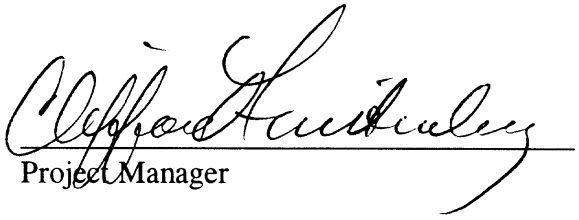
1.0
HEALTH AND SAFETY CONTINGENCY PLAN
PROJECT IDENTIFICATION AND APPROVALS

Project Name:	Passaic River Study Area
Date of Issue:	January 9, 1995
Effective Dates:	January 9, 1995 through September 1, 1996

Health and Safety Officer

15 August 1995

Date



Project Manager

3 July 1995

Date

Health and Safety Manager

10 July 95

Date

2.0
INTRODUCTION

This Health and Safety/Contingency Plan (HASCP) establishes guidelines and requirements for safety of personnel during the conduct of field activities associated with the Passaic River Study Area (the Site). This HASCP is intended for field activities and laboratory processing for the Site. All employees involved in field and processing activities for this project are required to abide by the provisions of this plan. They are required to read the HASCP and sign the attached Compliance Agreement (Attachment A). This HASCP is prepared in accordance with Occupational Safety and Health Administration (OSHA) Regulations 29 CFR Part 1910.120 (Hazardous Waste Operations and Emergency Response, Final Rule - 6 March 1989).

The health and safety guidelines and requirements presented herein are based on a review of available information and on an evaluation of potential hazards. Because of the variety of possible work activities and Site conditions which may be encountered, and the uncertainties associated with potential health effects from exposures to various constituents which may be present, the potential for health effects associated with field activities on this Site cannot be made risk-free. This HASCP outlines the health and safety procedures and equipment required for activities at this Site to reduce the potential for exposure of field personnel.

3.0
PROJECT PERSONNEL RESPONSIBILITIES AND AUTHORITIES AND USE OF THIS DOCUMENT

Any contractor or subcontractor conducting work at the Site is responsible for protection and health and safety of their own employees, which may include the use of this document. However, any company which uses this document for field activities must clearly identify the lines of authority for health and safety within their organization, and evaluate whether the health and safety procedures outlined in this HASCP are appropriate for those activities.

The health and safety position requirements and lines of authority are shown in Table 3-1. If the structure of the health and safety organization is different from that outlined in this document, a notification must be submitted to EPA in accordance with Section 3.0 of the Site Management Plan (SMP). Otherwise, compliance with this document will require the company provide names for the roles of the Health and Safety Manager (HSM), Regional Health and Safety Officer (RHSO), Health and Safety Officer (HSO), Project Manager (PM) and Site Safety Officer (SSO). One individual may be named to multiple roles. The names shall be presented in the initial site health and safety briefing to all on-site personnel working for that company.

If the health and safety procedures outlined in this HASCP are deemed to be inadequate for the work to be conducted, or if the work activities are not addressed in this plan, an addendum to this plan must be prepared.

Use of this document also requires that a qualified SSO be on site during all field activities to oversee implementation of this plan. To be qualified, an SSO must have at least 2 years field experience in health and safety on hazardous waste sites.

TABLE 3-1
HEALTH AND SAFETY POSITION REQUIREMENTS

PERSON	RESPONSIBILITIES	AUTHORITIES
Health and Safety Manager (HSM)	C Administration of the Health and Safety Program C Track health and safety regulations that affect site activities C Maintain records pertaining to medical surveillance, training, fit testing, chemical exposure, and incidents C Manage the employee medical surveillance program C Audit key aspects of Health and Safety Program and report effectiveness to CEO C Supervise RHSOs through a matrix management system C Provide practice leadership for the occupational safety and hygiene practice	C Implement improvements to the Health and Safety Program C Approve the health and safety qualifications of employees C Approve or disapprove Health and Safety Plans C Establish employee training and medical surveillance procedures C Suspend work on any project that jeopardizes the health and safety of personnel

TABLE 3-1
HEALTH AND SAFETY POSITION REQUIREMENTS

PERSON	RESPONSIBILITIES	AUTHORITIES
Regional Health and Safety Officer (RHSO)	C Direct the implementation of the Health and Safety Program of the region and provide recommendations of improvement of the program C Coordinate health and safety activities of the operating Units in the Operating Group C Determine need for project Health and Safety Plans C Maintain a high level of understanding regarding health and safety regulations C Review and approve Health and Safety Plans C Monitor implementation of Health and Safety Plans C Investigate reports of incidents or accidents and report to Health and Safety Manager C Provide employee health and safety training in the region, particularly refresher training C Determine whether an accidental exposure or injury merits a change in the affected individual's work assignments and whether changes in work practices are required C Coordinate region with regard to health and safety equipment needs C Supervise HSOs through a matrix management system, cooperation with the area managers	C Approve or disapprove Health and Safety Plans C Direct HSO to prepare project Health and Safety Plans C Access and review project files C Direct changes in personnel work practices to improve health and safety of employees C Remove individuals from projects, if their conduct jeopardizes their health and safety or that of their co-workers C Suspend work on any project that jeopardizes the health and safety of personnel involved

TABLE 3-1
HEALTH AND SAFETY POSITION REQUIREMENTS

PERSON	RESPONSIBILITIES	AUTHORITIES
Health and Safety Officer (HSO)	C Administer the Health and Safety Program within the area C Maintain a working understanding of key government health and safety regulations and company health and safety policies C Interface with project managers in matters of health and safety C Report to RHSO on health and safety matters C Develop or review, approve or disapprove project Health and Safety Plans prior to submittal to the RHSO for review C Conduct staff training and orientation on health and safety related activities C Appoint or approve site safety officers C Monitor compliance with Health and Safety Plans and conduct site audits C Assist project managers in obtaining required health and safety equipment C Approve personnel to work on hazardous waste management projects with regard to medical examinations and health and safety training C Answer employee questions and concerns regarding health and safety	C Suspend work or otherwise limit exposures to personnel, if health and safety risks are unacceptable C Direct personnel to change work practices, if existing practices are deemed to be hazardous to health and safety of personnel C Remove personnel from projects, if their actions or conditions endanger their health and safety or the health and safety of co-workers

TABLE 3-1
HEALTH AND SAFETY POSITION REQUIREMENTS

PERSON	RESPONSIBILITIES	AUTHORITIES
Project Manager (PM)	C Assure that projects are performed in a manner consistent with the company Health and Safety Program C Assure that the project Health and Safety Plans are prepared, approved, and properly implemented when required C Implement Health and Safety Plans C Assure that adequate funds are allocated to fully implement project health and safety C Coordinate with the HSO on health and safety matters	C Assign HSO-approved Site Safety Officer (SSO) to project and, if necessary, assign a suitably qualified replacement C Suspend field activities, if health and safety of personnel are endangered, pending an evaluation by the HSO and/or RHSO C Suspend an individual from field activities for infractions of the Health and Safety Plan, pending an evaluation by the HSO, RHSO, and/or HSM
Site Safety Officers (SSO)	C Direct health and safety activities on-site C Report immediately all safety related incidents or accidents to the HSO and project manager C Assist project managers in all aspects of implementing Health and Safety Plans C Maintain health and safety equipment on-site C Implement emergency procedures as required	C Temporarily suspend field activities, if health and safety of personnel are endangered, pending further consideration by the HSO and/or RHSO C Temporarily suspend an individual from field activities for infractions of the Health and Safety Plan, pending further consideration by the HSO and/or RHSO

4.0
SITE DESCRIPTION

A complete description of the Passaic River Study Area is presented in Section 2 of the IWP. A site map for the Passaic River is shown in Figure 4-1. For the purpose of this HASCP, the most critical aspect of the site description is the potential chemical hazards on Site. A listing of the potential chemicals of concern with respect to personnel safety is presented below.

A review of analytical data on sediment sample analyses within the Site performed on behalf of OCC between 1990 and 1993 was performed in order to estimate maximum concentration of hazardous chemicals to which personnel might potentially be exposed. The estimated concentrations are summarized in Table 4-1.

During previous sampling events, the breathing zone of site personnel was monitored with real-time organic vapor monitors when samples were processed. Elevated concentrations of unknown organic compounds were detected.

TABLE 4-1

ESTIMATED MAXIMUM CONCENTRATIONS OF HAZARDOUS CHEMICALS ON SITE[1]

Date	Compound	Max. Conc. (mg/kg)
Jul-93	2,3,3',4,4'-PCB	1.4
Jul-93	2,3,4,4',5-PCB	1.5
Mar-93	3,3',4,4',5,5'-PCB	0.0004
Jul-93	3,3',4,4',5-PCB	0.04
Jul-93	3,3',4,4'-PCB	1.6
1991	PCB 1242	3.8
Jul-93	PCB 1248	47.7
Mar-93	PCB 1254	5.1
Jul-93	PCB 1260	8.7
Jul-93	2,3,7,8-TCDD	0.24
1991	2,3,7,8-TCDF	0.001
1992	Total HPCDD	0.21
1992	Total HPCDF	0.16
1992	Total HXCDD	0.017
1992	Total HXCDF	0.065
Jul-93	Total PECDD	0.0064
Jul-93	Total PECDF	0.041
Jul-93	Total TCDD	0.27
Jul-93	Total TCDF	0.076
1992	2-Butanone	7.2
Jul-93	2-Hexanone	0.038
Jul-93	Acetone	50
Jul-93	Benzene	1.3
Jul-93	Carbon Disulfide	0.022
Jul-93	Chlorobenzene	29
Jul-93	Ethyl Benzene	2.3

TABLE 4-1
(Continued)

Date	Compound	Max. Conc. (mg/kg)
1992	Methylene Chloride	0.68
Jul-93	Toluene	0.87
Jul-93	Xylene (total)	150
Jul-93	4,4 DDD	221
1991	4,4 DDE	2.72
1991	4,4 DDT	7.69
Jul-93	Aldrin	0.0598
Jul-93	Alpha-BHC	0.0346
1992	alpha-Chlordane	0.129
Jul-93	Beta-BHC	8.44
1991	Delta-BHC	0.0454
Jul-93	Dieldrin	0.270
1992	Endosulfan I	0.151
Jul-93	Endosulfan II	0.123
Jul-93	Endosulfan sulfate	0.107
Jul-93	Endrin	1.25
Jul-93	Endrin aldehyde	0.452
Mar-93	Endrin ketone	0.166
1991	Gamma-BHC (Lindane)	0.0368
1992	gamma-Chlordane	0.128
Mar-93	Heptachlor	0.003
1991	Heptachlor epoxide (exo)	0.108
1991	Methoxychlor	0.083
1991	Nonachlorbiphenyl	0.020
1991	Decachlorbiphenyl	0.001
Jul-93	Dibutyltin	3.18
Jul-93	Monobutyltin	5.07
1992	Tributyltin	584

TABLE 4-1
(Continued)

Date	Compound	Max. Conc. (mg/kg)
1991	As	233
1991	Ba	968
1991	Be	2.7
1991	Cd	45.4
Jul-93	Cr	1,530
1991	Cy	6.02
1991	Hg	29.6
1992	Mg	11,100
Jul-93	Mn	3,190
1990	Ni	230
Jul-93	Pb	2490
Jul-93	Va	199
Jul-93	1,2 Dichlorobenzene	17
Jul-93	1,2,4 Trichlorobenzene	120
Jul-93	1,3 Dichlorobenzene	21
Jul-93	1,4 Dichlorobenzene	35
1991	2-Methylnaphthalene	850
1990	2-Methylphenol	0.29
Jul-93	4-Chloroaniline	1.8
1990	4-Methylphenol	7.5
1990	4-Nitrophenol	0.53
1991	Acenaphthene	1,000
1991	Anthracene	500
1991	Benzo(a)anthracene	320
1991	Benzo(a)pyrene	210
1991	Benzo(b)fluoranthene	110
1991	Benzo(ghi)perylene	46
1991	Benzo(k)fluoranthene	110

TABLE 4-1
(Continued)

Date	Compound	Max. Conc. (mg/kg)
Jul-93	bis(2-Ethylhexyl)phthalate	1,700
1991	Butyl benzyl phthalate	1.8
Jul-93	Carbazole	26
1991	Chrysene	340
Jul-93	Di-n-butyl phthalate	38
Jul-93	Di-n-octyl phthalate	170
1991	Dibenzo(a,h)anthracene	29
Jul-93	Dibenzofuran	74
1991	Fluoranthene	420
1991	Fluorene	530
Jul-93	Hexachlorobenzene	4.7
1991	Indeno(1,2,3-c,d)pyrene	55
1991	Naphthalene	1,300
1991	Phenanthrene	1,200
1990	Phenol	0.35
1991	Pyrene	650
1991	2,4 Dichlorophenol	350
1991	2,4,6 Trichlorophenol	1.2
1991	2-Chlorophenol	40
Jul-93	4-Methylphenol	6.3
Jul-93	TEPH as Diesel	52,000

(1) Estimated Maximum Concentration was derived through examination of analytical data on samples collected within the Passaic River Study Area between 1990 and 1993 and did not include review of all analytical data for samples from the Site.